



BEFORE THE PUBLIC UTILITIES COMMISSION OF THE  
STATE OF CALIFORNIA

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Order Instituting Investigation on the  
Commission's Own Motion on the Late  
2019 Public Safety Power Shutoff  
Events.

Investigation 19-11-013

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) RESPONSE TO EMAIL  
RULING DIRECTING PACIFIC GAS & ELECTRIC COMPANY, SOUTHERN  
CALIFORNIA EDISON COMPANY, AND SAN DIEGO GAS & ELECTRIC COMPANY  
TO FILE AN ACCOUNTING OF IMPACT ON REVENUE COLLECTIONS FROM  
THE 2019 PUBLIC SAFETY POWER SHUTOFF EVENTS**

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**I.**

**INTRODUCTION**

On March 10, 2021, Administrative Law Judge (ALJ) DeAngelis issued an email ruling (Ruling) directing, in part, Southern California Edison Company (SCE) to provide by no later than March 24, 2021, an accounting of the Public Safety Power Shutoff (PSPS) events that occurred in its service territory in calendar year 2020 and how those PSPS events impacted revenue collections. The Ruling authorized, but did not obligate, SCE to employ a method similar to the accounting provided by SCE in its 2019 Energy Resource Recovery Account (ERRA) Review Application (A.) 20-04-002 related to 2019 PSPS events and their estimated impacts on revenue collections. In accordance with the Ruling, SCE provides herein an accounting of the PSPS events that occurred in its service territory in 2020 and an estimate of how these events impacted SCE's 2020 revenue collections using the same methodology employed in A.20-04-002.

## II.

### **PUBLIC SAFETY POWER SHUTOFF IMPACTS ON REVENUE COLLECTIONS**

PSPS events are called when SCE determines there is an unacceptable and imminent risk of wildfire ignition associated with SCE's infrastructure and corresponding danger to public safety that could result from such an ignition. The important benefits associated with these events are difficult to numerically calculate, and the following sections describe only SCE's assumptions and methodology for estimating the revenue shortfall associated with SCE's 2020 PSPS events.

#### **A. Summary of PSPS Events in 2020**

Table II-1 provides the dates of each PSPS event in 2020 in SCE's service territory in which customers were de-energized, the number of customers impacted, and the simple average outage duration. More information on SCE's PSPS events can be found in SCE's Post-Event PSPS Reports.<sup>1</sup>

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<sup>1</sup> As required by Resolution ESRB-8, Decision (D.) 19-05-042, and D.20-05-051, and archived at <https://www.sce.com/wildfire#resources>.

**Table II-1**  
**Summary of PSPS Events in 2020<sup>2</sup>**

<b>Event</b>	<b>Number of Customers Impacted</b>	<b>Average Outage Duration (Hours)</b>
July 31 to August 4	17	30.07
September 5 to September 9	252	13.56
October 16	86	6.40
October 23 to October 28	36,989	19.32
November 3 to November 7	1,325	4.78
November 14 to November 18	506	14.04
November 24 to November 28	20,619	13.95
November 29 to December 4	63,494	16.62
December 4 to December 14	78,997	24.47
December 16 to December 24	27,513	15.53
<b>TOTAL</b>	<b>229,798</b>	<b>19.30</b>

**B. Methodology for Estimating PSPS-Related Revenue Shortfall**

SCE sets its rates on a forecast basis using the most recently approved sales forecast. Any difference between authorized revenues and/or recorded costs and actual revenues is recorded in SCE's revenue-related balancing accounts, and over- or under-collections in those balancing accounts are then refunded or recovered, respectively, from customers the following year. The 2020 sales forecast adopted in D.20-01-022 and used to set 2020 rates did not reflect any adjustments for potential PSPS events. As such, all else being equal, the de-energization of customers would result in a revenue shortfall in SCE's balancing accounts because SCE's actual sales would be lower than those assumed in the rate-setting process because of the unrealized sales due to PSPS events.<sup>3</sup>

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<sup>2</sup> This table reflects the number of customers impacted for which SCE has usage and rate information retrievable via SCE's automated processes. The total number of customers impacted is slightly higher (a total of 230,197 customers), but those customers had situations (*e.g.*, turn ons, turn offs) that did not allow SCE to include them in this analysis. This slight variance is not expected to be substantive to the overall analysis.

<sup>3</sup> For example, assume a \$10 revenue requirement and 100 kWh forecast sales. Rates are thus set on a forecast basis at \$0.1/kWh. Assume SCE's actual sales are 90 kWh due to a PSPS event. SCE will collect \$9 in revenue, and its balancing account will reflect a -\$1 under-collection.

SCE performed the following steps to estimate this revenue shortfall:

- Step 1: Estimate the unrealized sales due to PSPS events.
- Step 2: Quantify the revenue shortfall by multiplying the sales loss by the applicable rates.

## 1. Unrealized Sales Due to PSPS Events

“Unrealized sales” are impossible to perfectly quantify because measuring unrealized sales inherently relies on a counterfactual scenario: how much energy would customers have used if a PSPS de-energization event had not occurred? Because customers differ in their energy usage, SCE estimates the average unrealized sales by customer class by relying on existing load research studies that collect and analyze all customers’ energy and demand requirements by class, month, and day-type (weekday vs. weekend/holiday). A relevant excerpt from SCE’s 2019 Load Study is shown in Table II-2.<sup>4</sup>

**Table II-2**  
***SCE 2019 Load Study – Average Hourly Usage by Rate Group kWh***

Month	Aug		Sep		Oct		Nov		Dec	
Rate Group	Workday	Weekend	Workday	Weekend	Workday	Weekend	Workday	Weekend	Workday	Weekend
Residential Single/Multi Family	1.08	1.09	0.85	0.95	0.66	0.67	0.59	0.63	0.69	0.71
Residential Master Metered	14.31	14.36	11.34	12.48	8.86	8.90	8.17	8.53	9.61	9.71
TOU-GS-1	1.64	1.34	1.51	1.27	1.36	1.14	1.26	1.08	1.26	1.07
TC-1	0.42	0.42	0.42	0.42	0.43	0.43	0.43	0.43	0.43	0.43
TOU-GS-2	22.32	17.88	20.89	16.99	19.10	15.13	17.34	14.07	16.58	13.27
TOU-GS-3	150.35	110.74	145.08	107.47	134.68	97.96	124.35	94.42	117.49	88.85
TOU-PA-2	12.82	11.68	10.56	9.49	9.09	7.79	7.09	6.21	5.33	4.74
TOU-PA-3	136.68	123.94	126.50	115.89	116.29	102.29	101.97	91.60	81.13	72.61
TOU-8-SUB	4240.34	4055.07	4198.40	3996.49	4198.09	3917.15	4096.61	3824.73	3913.95	3693.14
TOU-8-PRI	1043.38	870.49	1016.28	849.54	963.77	796.42	914.81	767.27	855.47	720.94
TOU-8-SEC	466.66	346.79	452.88	334.61	431.45	313.61	404.55	301.68	379.07	280.28
Street Lighting	1.73	1.70	1.93	1.86	2.10	2.04	2.25	2.20	2.27	2.24

SCE first identified the impacted service accounts and number of hours each account was subject to PSPS, then aggregated that data to calculate the number of “PSPS hours” by customer class, month, and day-type.

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<sup>4</sup> The “2019 Load Study” includes a three-year average of customer usage from 2017, 2018 and 2019. This is consistent with the methodology used to quantify the 2019 PSPS revenue shortfall as part of A.20-04-002, in which a three-year average of customer usage from 2016, 2017 and 2018 was used.

**Table II-3**  
**PSPS Hours by Rate Group in 2020<sup>5</sup>**

# of Hours Off	August	September	October	November		December		TOTAL
	Weekend	Weekday	Weekday	Weekday	Weekend	Weekday	Weekend	
Residential Single/Multi Family	324	2,393	639,407	91,935	174,336	3,046,160	4,050	3,958,605
Residential Master Metered		18	726	140	396	4,767	16	6,062
SCE-M			271	43	97	641	18	1,070
TOU-GS-1	98	886	58,116	6,770	23,270	304,419	1,088	394,649
TC-1			1,842	110	369	6,112		8,432
TOU-GS-2	89	112	8,475	993	1,780	35,850	124	47,422
TOU-GS-3			806	25	126	2,842		3,799
TOU-8-SEC		9	198		21	827	6	1,061
TOU-8-PRI			30	10	29	339		409
TOU-8-SUB			14	0	26	57		97
Street Lighting			5,365	144	360	7,699	4	13,572
<b>TOTAL</b>	<b>511</b>	<b>3,417</b>	<b>715,251</b>	<b>100,170</b>	<b>200,811</b>	<b>3,409,712</b>	<b>5,307</b>	<b>4,435,179</b>

SCE then multiplied those PSPS hours by the relevant load study average kWh usage to quantify the total estimated unrealized sales by rate group. As shown in Table II-4, SCE estimates that in total there was approximately 6 GWh in unrealized sales due to PSPS events in 2020 (*i.e.*, 0.01% of the recorded 83,533 GWh in 2020 total system usage).

**Table II-4**  
**Unrealized Sales Due to PSPS Events in 2020**

Class	Total kWh by Class
Residential - Single/Multi-Family	2,693,849
Residential - Master Metered	90,392
TOU-GS-1	434,442
TC-1	3,631
TOU-GS-2	804,090
TOU-GS-3	852,177
TOU-PA-2	0
TOU-PA-3	0
TOU-8-SEC	407,062
TOU-8-PRI	350,969
TOU-8-SUB	382,034
Street Lighting	14,159
<b>TOTAL kWh</b>	<b>6,032,805</b>

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<sup>5</sup> Although Table II-1 shows the first event beginning July 31, 2020, no actual de-energization occurred until August, which is why this table and subsequent tables do not include any July data.

## 2. Revenue Shortfall Based on the Applicable Charges

SCE estimated the PSPS-related revenue shortfall by multiplying the unrealized sales by the applicable energy (\$/kWh) rates by class.

The following table lists each of SCE's major CPUC-jurisdictional revenue-related balancing accounts, the general type of costs recovered through those balancing accounts, and the rate component used to recover those costs from customers.<sup>6</sup>

**Table II-5**  
**CPUC-Jurisdictional Balancing Accounts<sup>7</sup>**

Balancing Account	Costs Recovered (description is not intended to be exhaustive--for more information, please see respective Preliminary Statement)	Rate Component
Base Revenue Requirement Balancing Account (BRRBA)	Distribution base revenue requirement, as authorized in SCE's General Rate Case	Distribution Charge
Public Purpose Programs Adjustment Mechanism (PPPAM)	Public Purpose Programs (e.g. Energy Efficiency, administration of CARE and Energy Savings Assistance program, surcharge to fund CARE discount)	Public Purpose Programs Charge
Nuclear Decommissioning Adjustment Mechanism (NDAM)	Nuclear decommissioning revenue requirement and spent nuclear fuel costs	Nuclear Decommissioning Charge
New System Generation Balancing Account (NSGBA)	Peakers revenue requirement, as authorized in SCE's General Rate Case, and net costs of Cost Allocation Mechanism contracts	New System Generation Charge
Portfolio Allocation Balancing Account (PABA)	Above-market costs of long-term (>1 year) generation resources (contracts and Utility Owned Generation)	Generation Charge or Power Charge Indifference Adjustment
Energy Resource Recovery Account (ERRA)	Cost of meeting bundled service customers' energy, resource adequacy, and Renewable Portfolio Standard (RPS) requirements	Generation Charge
California Alternate Rates for Energy Balancing Account (CAREBA)	Discount for CARE customers	Discount provided in Distribution Charge; Surcharge to fund discount collected in PPPC
Tree Mortality Nonbypassable Charge Balancing Account (TMNBCBA)	Actual costs, energy and ancillary services revenues, REC sales-related revenues and RA sales-related revenues of SCE's tree mortality contracts	Public Purpose Programs Charge

<sup>6</sup> Additionally, SCE collects the Wildfire Fund Nonbypassable Charge and the Public Utilities Commission Reimbursement Fee. Revenues collected through these charges are forwarded to the relevant agency and not recovered through a SCE balancing account.

<sup>7</sup> The BRRBA, PPPAM, and NDAM record the difference between the authorized revenue requirement and actual revenues received from customers; as such, any over- or under-collections in these accounts are solely attributable to differences between forecast and actual sales (*i.e.*, sales variance). The NSGBA, PABA, TMNBCBA and ERRA BA record the difference between actual costs and actual revenues; as such, over- or under-collections in these accounts may be attributable to sales variance, differences between forecast costs that are used to set the rates and actual costs (*i.e.*, cost variance), or a combination of the two. Other balancing accounts, such as the CAREBA, record the difference between discounts distributed to CARE customers and surcharges collected from non-CARE customers to fund the discount.

For purposes of this exercise, SCE considered all balancing accounts shown above except the ERRA BA and CAREBA. The ERRA BA is excluded because SCE does not incur purchased power costs for unrealized sales. As such, there should be no revenue shortfall in the ERRA BA due to PSPS events. The CAREBA is excluded because it is not used to recover “authorized costs;” it is simply the mechanism to fund and distribute the CARE discount to eligible customers.

SCE determined the revenue shortfall in each account by multiplying the applicable class average energy (\$/kWh) charges, effective at the time of the PSPS event,<sup>8</sup> by the class-specific unrealized sales. PPPC, NDC, NSGC, and PCIA<sup>9</sup> are collected on a \$/kWh energy charge basis from all customer classes. As such, the class average energy charge is simply the functionalized revenue requirement forecast to be recovered from each class divided by the class-specific kWh sales.<sup>10</sup> Distribution charges are collected through a combination of facilities-related demand charges (\$/kW based on a customer’s maximum demand in a month), customer charges (flat and specified \$/customer fee), and energy charges (\$/kWh), and the amount collected through each type of charge varies by customer class. Because facilities-related demand charges and customer charges are generally not impacted by PSPS events, the class average distribution energy charges used for this exercise have been pro-rated to reflect the average energy charges that are actually collected from customers on a \$/kWh basis.<sup>11</sup> Table II-6 lists the applicable charges used to determine the revenue shortfall.

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<sup>8</sup> For the purposes of this analysis, SCE used the rates in effect from October 1, 2020, through December 31, 2020, since that is when the vast majority of the PSPS events occurred in 2020. *See* Advice 4301-E/E-A (Supplement to Advice 4301-E) for rate information.

<sup>9</sup> SCE multiplied all usage by the 2020 vintage PCIA rate, which was the rate embedded into bundled service customers’ generation rate.

<sup>10</sup> SCE removed the CARE surcharge from the class average PPPC rates.

<sup>11</sup> For example, 97 percent of distribution revenues collected from domestic customers are collected through \$/kWh energy charges. As such, SCE multiplied the domestic revenue requirement by 0.97 and divided that amount by domestic kWh sales to calculate the domestic class average distribution charge. On the other hand, approximately 12 percent of distribution revenues collected from large industrial (TOU-8-SEC) secondary customers are collected through \$/kWh energy charges, while the rest is collected through demand and customer charges. As such, SCE multiplied the TOU-8-SEC

Continued on the next page



**Table II-6**  
**Class Average Energy Charges**

	Distribution Energy Charge	NDC	PPPC	NSGC	PABA Rate (2020 Vintage)
Residential Single/Multi Family	0.08146	-0.00050	0.00708	0.01257	0.02724
Residential Master Metered	0.09154	-0.00050	0.00715	0.01257	0.02724
TOU-GS-1	0.05104	-0.00050	0.00329	0.01050	0.02106
TC-1	0.05465	-0.00050	0.00307	0.00680	0.01928
TOU-GS-2	0.00706	-0.00050	0.00333	0.00999	0.02139
TOU-GS-3	0.00620	-0.00050	0.00409	0.00920	0.02031
TOU-PA-2	0.01065	-0.00050	0.00250	0.00685	0.01988
TOU-PA-3	0.00875	-0.00050	0.00283	0.00662	0.01918
TOU-8-SUB	0.00000	-0.00050	0.00192	0.00665	0.01825
TOU-8-PRI	0.00448	-0.00050	0.00414	0.00766	0.01938
TOU-8-SEC	0.00527	-0.00050	0.00463	0.00853	0.01985
Street Lighting	0.03013	-0.00050	0.00317	0.00501	0.01814

Based on these charges, SCE estimates the total revenue shortfall associated with 2020 PSPS events to be approximately \$499,506. The revenue shortfall broken down by balancing account is provided in Table II-7.

**Table II-7**  
**Revenue Shortfall by Account**

"Unrealized Revenues"	BRRBA	NDAM	PPPAM	NSGBA	PABA	TOTAL
by Account	\$ 265,186	\$ (3,016)	\$ 31,427	\$ 64,229	\$ 141,680	\$ 499,506

### III.

### CONCLUSION

SCE respectfully submits this response to the Ruling.

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revenue requirement by 0.12 and divided that amount by TOU-8-SEC kWh sales to calculate the TOU-8-SEC class average distribution charge.

Respectfully submitted,

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